

Notes on some synonymy of the Japanese Crabroninae  
(Hym., Sphec.), with the erection of a new subgenus of *Ectemnius*\*

By Katsuji Tsuneki\*\*

(1) *Crabro tetracanthus* Pérez, 1905

*Crabro tetracanthus* Pérez, 1905, p. 155 (♂); *Crabro (Crabro) tetracanthus* Kohl, 1915, p. 26, 50; *Ectemnius (Metacrabro) tetracanthus* Leclercq, 1954, p. 288.

This species is considered a synonym of *Ectemnius (Metacrabro) spinipes* (A. Morawitz, 1866) (**syn. nov.**). In spite of my long search I have not yet succeeded in finding even a single specimen of the Crabronine wasp that agrees completely with the description of *Cr. tetracanthus* Pérez. According to the original description the characters by which Pérez's species is separable from *spinipes* are (1) the yellow markings on the abdomen are limited to the two lateral ones on the 2nd segment, and (2) punctures on the abdomen are very distinct. Whereas:

(1) In the Japanese specimens of *E. spinipes* (♂) usually two large markings on the 2nd tergite and a band on the 5th and 6th segments respectively are yellow. However, it is not rare that one or both of the bands become invisible or completely disappear. (2) It is usual to us to describe the punctuation on the abdomen of such species as *E. spinipes* "practically impunctate", though there are in reality microscopically minute hair-pits scattered. But Pérez seems to have a habit of considering these as distinct punctures, because in describing *Crabro iridifrons* that has the similar punctuation of the abdomen he used the expression "punctuation de l'abdomen très évidente,..." Judging from the fact it seems that the punctuation on the abdomen of his *tetracanthus* is similar to that of *spinipes*.

However, it must not be forgotten that he wrote this species as "du groupe de *Cr. spinipes* Mor. et *Kriechbaumeri* Kohl". But when we consider that *E. spinipes* does not occur in France and belongs to one of the rather rare species in Europe it seems not unreasonable to suppose that he made comparison basing on the literature only. When we thus consider there seems to be little doubt that *Cr. tetracanthus* Pérez is nothing but a synonym of *E. spinipes* A. Mor.

(2) *Ectemnius (Cameronitus) mizuho* Tsuneki, 1952.

*Crabro (Clytochrysus) nigratarsus* Kohl, 1915, p. 68 (Ein japanische Stücke); *Crabro (Clytochrysus) nigratarsus* f. *mizuho* Tsuneki, 1947, p. 400; *Ectemnius (Clytochrysus) mizuho* Tsuneki, 1952, p. 63; 1955, p. 67; *Ectemnius (Cameronitus) mizuho* Leclercq, 1954, p. 284; Tsuneki, 1957, p. 59.

This species is considered a synonym of *Crabro radiatus* Pérez (**syn. nov.**), the latter should be in the modern classification as follows:

*Ectemnius (Cameronitus) radiatus* (Pérez, 1905)

References: *Crabro radiatus* Pérez, 1905, p. 155 (♂); *Crabro (Crabro) radiatus*

\* 常木勝次: 邦産銀口蜂亜科のシノ = Δ並に *Ectemnius* の一新亜属について.

\*\* Biological Laboratory, Fukui University, Japan.

Kohl, 1915, p. 46; *Ectemnius* (*Metacrabro*) *radiatus* Leclercq, 1954, p. 289.

Remarks. Some doubt seems still to exist as to the validity of this species (= *mizuho*) among the morphological taxonomists. But the chief reason of this species being considered valid lies in a state of its complete ecological isolation from *E. nigritarsus* within the category of which this species has long been included. Moreover, there are certainly some constant morphological distinctions between them which were given in detail when *mizuho* is separated as new.

(3) *Crabro sakaguchii* Matsumura et Uchida, 1926.

*Crabro sakaguchii* Mats. et Uch., 1926, p. 38; *Ectemnius* (*Hypocrabro*) *sagakuchii* (!) Leclercq, 1954, p. 270.

According to the examination of the type, this species is, no doubt, a synonym of *Ectemnius* (*Hypocrabro*) *schlettereri* (Kohl, 1888) (**syn. nov.**). But a slight difference shown by the type may merit a subspecies, hence it should be called:

*Ectemnius* (*Hypocrabro*) *schlettereri sakaguchii* (Mats. et Uch., 1926)

The subspecific characters:

(1) Median protuberance of clypeus distinctly narrower. (2) The shortest distance between eyes (at the insertion of antennae) much narrower, nearly half the length of the 1st antennal joint. (3) A curve formed by ocelli somewhat stronger, posterior margin of anterior ocellus slightly before the supposed line connecting the anterior margins of postocelli (in *schlettereri* s. str. slightly behind the line). (4) Rugosed carinae on lateral margins of posterior aspect of propodeum almost none, only leaving a part on upper portion. (5) Coloration correspondent to the brightest form of the nominate race (see Kohl, 1915, p. 73).

(4) *Crabro* (*Ceratocolus*) *esakii* Yasumatsu, 1942.

*Crabro* (*Ceratocolus*) *esakii* Yasumatsu, 1942, p. 91; *Lestica* (*Ceratocolus* ?) *esakii* Leclercq, 1954, p. 292.

Judging by the description and the excellent figures of this species it seems a synonym of *Crossocerus* (*Blepharipus*) *vagabundus* (Panzer, 1798) (**syn. nov.**)

(5) *Iwataia* subgen. nov. of *Ectemnius*

Type: *Crabro furuichii* Iwata, 1934.

Similar to subgen. *Cameronitus* Leclercq (1950) in which it has been allocated in having the mandibles dentate on inner margin and in the presence of pygidial area even in males, but differs from it in the sculpture of mesonotum and in the form of antennal flagella in males:

Punctures on mesonotum large and sparse and connected longitudinally with each other by shallow grooves, hence the appearance becomes coarsely substriate, on posterior portion turning into complete striation (♀ ♂). Antennae (♂) with joint 6 distinctly excavated beneath and produced at apex, the feature somewhat similar (but more distinctly so) to the case of the members of *Hypocrabro*, joints 7 and 8 also slightly produced at apex. In addition to the above, vertex (♀ ♂) almost smooth and polished and distinctly depressed somewhat as in the members of *Blepharipus* or *Cuphopterus* of *Crossocerus*.

Remarks. In habits this species is quite distinct among the Crabronine wasps in hunting the Orthopterous insects (Tettigoniidae) as food for the young.

